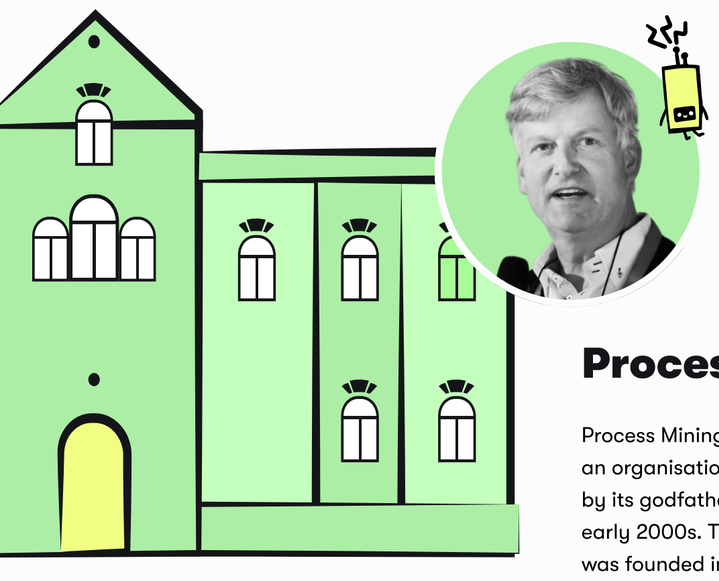
History of Process Automation

Three forefathers of modern automation beginning 1990s

The term screen scraping generally encompasses all processes for reading text from computer screens. First versions have been released in the late 1980s

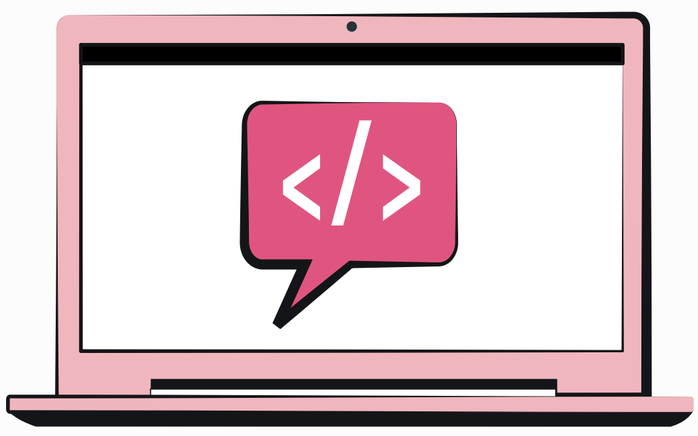
Early 1990s. First workflow automation software solutions, based on workflow engines, were released. This software replaced basic, paper-based processes with electronic ones, enabling companies to replace paper-based task-routing activities with automated electronic-form processes.

Late 1990s. Features such as modelling tools, business rules and more were added to analyze, model and describe business processes. It helped companies analyze the graphical view of “as-is” processes in an organization and contrast it with “to-be” processes to make them more efficient.



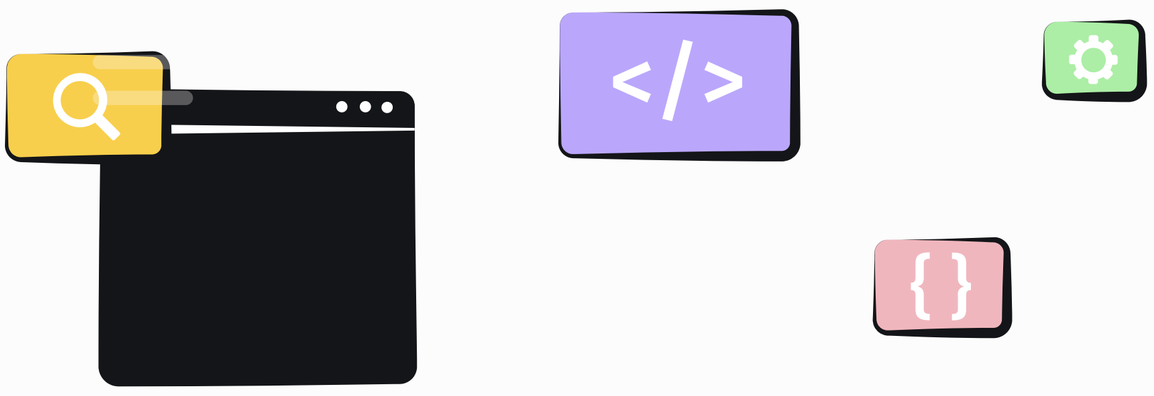
Process Mining

Process Mining is like an **X-Ray for processes** in an organisation. The basic concept was invented by its godfather Wil van der Aalst back in the early 2000s. The current Market Leader Celonis was founded in 2011 by Alex Rinke, Bastian Nominacher, and Martin Klenk as a spin-off from the Technical University of Munich (TUM). In 2020 Celonis bought Integromat a winning champion in IpaaS business to **align Process Mining with iPaaS** technologies.



Low-Code and No Code

After a publication by the Forrester Group in 2016, the term “low-code” became public.
We’ve seen the emergence of Low-Code Development Platforms (LCDP) — that trace their **origins back to 2011** — with the aim to get as many concepts under one roof as possible to **make writing code unnecessary** or at least **significantly reduced**. The easier it became for business user to write automation code themselves the more powerful the automation topic could become



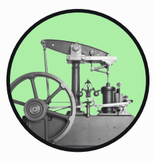
Automation as a Service

Since the **early 2020**s Companies start to make use of various automation technologies to offer an end to end automation service to customers. Some companies even offer a “Netflix-like”-experience by offering a monthly subsrciption, which includes setting up an infrastructure, analyzing processes and automating the best fitting ones step by step over time.

Automation as a Service may seem like a complex solution aimed at big businesses, but that’s not actually correct. It’s basicly the all in one solution for companies which don’t have the ressources or initial budget to start with Process Automation right away.

BOTS & PEOPLE

Back Then



2,000 years ago the Chinese developed trip-hammers powered by flowing water and waterwheels. The early Greeks experimented with simple reaction motors powered by steam.

Another important development in the history of automation was the Jacquard loom, which demonstrated the concept of a programmable machine. **About 1801** the French inventor Joseph-Marie Jacquard devised the automatic loom capable of producing complex patterns in textiles by controlling the motions of many shuttles of different coloured threads.

From 1939 on, Alan Turin deciphered the secret code of the German Army in World War 2 with his Turing Machine. Based on that, he developed a precursor of the computer, which is later further developed by coriphae like Zuse

The raise of traditional RPA

RPA emerged in the 2000s – Blue prism released their first product in 2003, UiPath and Automation anywhere released their automation libraries around the same time (all companies were founded a bit earlier).

As per Alastair Bathgate, CEO of Blue prism: “We started focusing on the BPO space as a route to market.. .”. UiPath also started seeing traction for their product with an Indian BPO company. So RPA started off as a way to **reduce costs in Business Process Outsourcing** and moved to Shared Services, IT Outsourcing, and other Business areas.

IRPA UiPath™

Cloud and IpaaS

IPaaS has been around since **2011** as a response to more and more companies adopting cloud platforms, infrastructures and applications. iPaaS was created as a way to **connect different cloud applications.**
As iPaaS grew, it developed into a **broader integration platform** able to perform cloud to cloud integration and **connect on-premises software and cloud applications.**

This type of integration is called **hybrid integration**. With IpaaS the traditional use of RPA via the User Interface becomes obsolete for many processes happening between state of the art cloud solutions.

integromat workato

Intelligent Process Automation

From **around 2015** Cognitive RPA allows for better optical character recognition (OCR), natural language processing (NLP) and machine learning to handle semi-structured and unstructured data, expanding the efficiencies of RPA to a wider range of enterprise activities. This is the RPA we know today.

The field of AI research was founded at a workshop held on the campus of **Dartmouth College during the summer of 1956**. Those who attended would become the leaders of AI research for decades. Many of them predicted that a machine as intelligent as a human being would exist in no more than a generation, and they were given millions of dollars to make this vision come true.

The Future of Automation and Hyperautomation

In **October 2019**, the term **"hyperautomation"** first appeared on Gartner's list of the top 10 strategic technology trends for 2020. According to Gartner, hyperautomation "addresses the application of advanced technologies, **including artificial intelligence (AI)** and **machine learning (ML)**, to increasingly automate processes and complement people and business.The global market for technologies that enable hyperautomation will reach **$596.6 billion in 2022**, according to a new forecast from Gartner. This is up from $481.6 billion in 2020 and $532.4 billion in 2021 in the automation technology business.

Hyperautomation spans a range of tools that can be automated, but also refers to the intricacies of automation (i.e., discover, analyze, design, automate, measure, monitor, re-evaluate). Forrester also recognizes the concept of hyperautomation as **"digital process automation,"** and IDC runs it under the name **"intelligent process automation**. Early on, hyperautomation was predicted to have an excellent future. In the 2020 Coherent Market Insights, the hyperautomation market is forecast to grow at a compound annual growth rate of 19% between 2019 and 2027, exceeding $23.7 billion by the end of the forecast period.